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NINETEENTH ANNUAL REPORT OF THE BOARD OF HEALTH

CITY OF CHICAGO
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BUREAU OF STATISTICS

CHICAGO

CITY OF DETROIT

FOR THE FISCAL YEAR ENDING JUNE 30TH

1900

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MUNICIPAL LIBRARY,
CHICAGO.



BOARD OF HEALTH BUILDING, DETROIT, MICH.

MUNICIPAL LIBRARY,
CHICAGO.

Nineteenth Annual Report

OF THE

BOARD OF HEALTH

OF THE

CITY OF DETROIT.

For the Fiscal Year Ending June 30th, 1900.

The Present Board came into Existence March 1st, 1895, under a Special Act of the Legislature of the State of Michigan, Approved February 27, 1895.

THOS. SMITH PRESS, DETROIT.
1901

MUSEUM OF ARTS
CHICAGO

MUNICIPAL LIBRARY,
CHICAGO.

MEMBERS OF THE BOARD.

JAMES H. POUND, President.
Term expires February 28, 1901.

B. HOWARD LAWSON, M. D. Vice-President,
Terms expires February 28, 1902.

JOHN L. IRWIN, M. D.
Term expires February 28, 1903.

DAVID J. MCALLISTER,
Term expires February 28, 1904

EXECUTIVE STAFF.

HENEAGE GIBBES, M. D., C. M., L.R.C.P. (Lond.)	Health Officer
JOHN F. MCKINLAY,	Secretary
A. B. RAYMOND, C. E.,	Sanitary Engineer
W. I. TIBBALS, Ph., C.,	Chemist and Bacteriologist
LEWIS R. NICHOLSON,	Registrar
E. H. TROY, M. D., DOUGLAS LONG, M. D.,	Food and Milk Inspectors
E. J. KENDALL, M. D., PHILIP J. LORANGER, M. D.,	Medical Inspectors and Disinfectors
JOHN R. EGGEMAN, R. ARMSTRONG, D. V. S.,	Meat Inspector
B. F. SCHELLBERG, J. W. REED,	Quarantine Inspectors
R. P. VANDY,	Funeral Inspector
R. T. HURST, W. G. WILLIAMSON, JOHN L. THOMSON, WILLIAM MOUAT,	Plumbing Inspectors
ROBERT H. MILNE,	Sanitary Engineer's Clerk
HENRY T. RENSHAW,	Permit Clerk
W. J. FISK,	Night Clerk
MRS. JENNIE BROWN,	Janitress

HONORARY BOARD OF EXAMINERS OF PLUMBERS.

SAMUEL DICKSON. JAMES H. CRUMLEY. RICHARD WALSH.

CONTENTS

MUNICIPAL LIBRARY,
CHICAGO.

DETROIT, MICH., July 1, 1900.

To the Honorable the Board of Health of the City of Detroit.

GENTLEMEN:—The services of Health Officer Gibbes, Meat Inspectors, Eggeman and Armstrong; Milk Inspectors, Long and Troy, and Medical Inspector and Disinfector, Loranger, having been dispensed with on the 30th day of June last, which was the end of the fiscal year, and they, with the exception of meat inspector, Eggeman, declining to furnish me with a summary of their work during the fiscal year ending as aforesaid, the same is therefore necessarily omitted from the annual report of the Board of Health, for the fiscal year ending June 30, 1900.

Yours respectfully,

JOHN F. McKINLAY,
Secretary.

REPORT OF VITAL STATISTICS BUREAU.

W. R. BAKER, M. D., Health Officer,

DEAR SIR—I respectfully submit the following as the report for the contagious disease and vital statistics departments for the year ending June 30th, 1900.

SUMMARY OF MORTALITY.

AGE.	July, 1899.	August.	September.	October.	November.	December.	January, 1900.	February.	March.	April.	May.	June.	Total.
Under 1 year	156	126	89	84	90	64	72	88	86	100	105	89	1,149
1 to 4 years	30	46	44	33	45	50	28	33	57	43	29	23	461
5 to 9 years	11	7	6	10	6	14	19	18	15	13	12	10	141
10 to 19 years	22	22	18	12	19	22	20	20	13	21	17	13	219
20 to 29 years	40	27	27	37	27	29	23	41	39	38	34	21	383
30 to 39 years	36	43	19	27	25	26	25	40	42	36	38	29	386
40 to 49 years	32	28	21	27	20	35	33	23	34	28	40	27	348
50 to 59 years	25	40	32	31	32	31	27	28	40	53	29	26	394
60 to 69 years	41	30	32	38	32	41	38	37	43	55	46	29	463
70 to 79 years	30	29	16	26	35	33	37	34	61	59	38	22	411
80 years and over	16	12	26	21	12	23	17	15	20	28	24	17	231
Still born	17	28	30	29	30	33	31	20	32	35	33	30	348
Total	456	438	361	375	373	401	370	397	482	500	445	336	4,934

SUMMARY OF MORTALITY—Continued.

NATIVITIES.

Place of Birth.	July, 1899.	August.	September.	October.	November.	December.	January, 1900.	February.	March.	April.	May.	June.	Total.
Detroit	235	205	175	160	164	173	169	147	212	218	197	155	2,210
Michigan	46	64	22	38	39	43	33	56	35	37	33	35	481
Other States	30	50	46	50	54	46	50	46	51	62	58	30	573
Austria	2	1		1	2	1			2			1	10
Australia				1									1
Bohemia	1	1	1	1	3		3		2	1	2	3	18
Belgium	3	...	1			3	1			1			9
Bavaria		1	1									. . .	2
Canada	28	19	25	23	23	31	21	31	36	33	40	20	330
Denmark		2		1									3
England	10	13	12	7	8	15	14	13	9	16	11	5	133
France		1	2		...	4	1	1	2	3	1	2	17
Germany	49	49	49	59	47	52	51	63	77	74	57	54	681
Greece													0
Holland						1				1		1	3
Hungary								1		1			2
Ireland	34	24	18	17	22	18	19	25	31	29	24	15	276
Italy	2	1								1	1	1	6
Poland				2		4	1	4	5	5	3	2	26
Prussia									1	1			2
Russia	2	1	2	1	2	2	1	2	2	3	2	2	22
Scotland	3	3	3	5	3	4	4	2	9	10	9	2	57
Spain	2		1							. ..		1	4
Sweden		1							1		1		3
Switzerland	1					1		2	1	1		2	8
Not stated	8	2	3	9	6	3	2	4	6	3	6	5	57
Total	456	438	361	375	373	401	370	397	482	500	445	336	4,934

SUMMARY OF MORTALITY—Continued.

CAUSES OF DEATH.

CAUSE OF DEATH.	July, 1899.	August.	September.	October.	November.	December.	January, 1900.	February.	March.	April.	May.	June.	Total.
Abscess	1							..		1		2	4
" pelvis		2							1				3
" liver		1			1		1					1	4
" brain			1										1
" lung											1		1
" uterus											1		1
" abdominal											1		1
" chest						..			1	..		1	2
Accidental, killed by cars	5	3	3	5		6	2	2	3	5	5	3	42
" drowning	2	8	3	1		1	1	1			3	3	23
" poison	2		3				2	3		3		1	14
" gun shot	2		1	1	1	1		1	1		1	1	10
" fall	3	3	3	2	1	1			1		1	2	17
" burned	3	10	1	2	1			1		1	1	1	21
" scalding		1						1			2		4
" electric shock		1								1			2
" bicycle			1				..						2
" crushed			1		1	3		2	1				8
" asphyxia					1	2							3
" frozen			..			1	..						1
Alcoholism	3	1	3	3	..		1	1	2		2	2	18
Anaemia	4	2	2				2				3	1	14
" pernicious		1	2		1		2	1	1	1	2		11
Appendicitis	4	3	1	1	3	5	2	2	1	3	3	1	29
Apoplexy	10	15	10	13	3	12	16	9	12	14	12	11	137
Asthma	2		2	3	6	3	2	2	4	5	2	2	33
Anasarca							1		1				2
Atrophy, liver						..						1	1
" muscular				1									1
Angina Pectoris	1		1		3	1	2	3	1	1	5	1	19

SUMMARY OF MORTALITY—Continued.

CAUSE OF DEATH.	July, 1899.	August.	September.	October.	November.	December.	January, 1900.	February.	March	April.	May.	June.	Total.
Asphyxia	1	1	2	2	1	..	1	2	2	2	3	1	18
Atelectasis		1					1	1	1	1		1	6
Aneurism	1							1					2
Atheroma	1						..				..		1
Aortic Regurgitation	1												1
Albuminuria		1		1		1			1	1			5
Arterio Sclerosis			1	1					1	2	1		6
Aneurism Aorta					1						1		2
Aortic Stenosis					1								1
Abortion		..					1			1			2
Acetonuria							1			..			1
Abnormal Labor							1						1
Arteries, calcerous degeneration					1								1
Adenitis Cervical											1		1
Biliary Calculi	1												1
Brights Disease	2	5	3	3		3	1	2	4		6	7	36
Bronchitis	7	11	4	9	9	7	5	8	10	9	17	1	97
" chronic	1	..	3	1	2	5		4	6	2	1	1	26
" capillary		1	2	3	11	9	6	13	10	8	6		69
Breech Presentation			2	2	..			1		1	2	1	9
Brain, organic disease				1	..								1
" congestion of	2	2	3	1	3	1	2	1	2	5	1	4	27
" softening of						1		1	1	2			5
Carcinoma	2	3	1	3	2	1	1	2	1	1	1	1	19
" stomach	8	7	4	6	4	7	5	3	2	6	7	3	62
" intestines	1	1				1	1		1	1	2	1	9
" face	2												2
" breast	1		1	2	1		1	1	1	1	2		11
" uterus	1	1	3		2		3	2	4	6	3	3	28
" penis		1											1
" tongue		1											1
" liver		1	1		3	3		1	1	1	2		13

SUMMARY OF MORTALITY—Continued.

CAUSE OF DEATH.	July, 1899.	August.	September.	October.	November.	December.	January, 1900.	February,	March.	April.	May.	June.	Total.
Carcinoma, rectum			2		1	2	1	1	1			2	10
" abdomen	...		1			..			1	1			3
" oesophagus	...	...		1						...	1		2
" neck	...			1	1		1	1	1		1		6
" vagina			...		1						...		1
" groin	...						1		1		...		2
" pancreas							1	...			1		2
Cholera Infantum	81	32	22	3	4		3	1	3	.	1	9	159
" Morbus	3	1										...	4
Cirrhosis of Liver	6	3	2	2	2	2	1	3	7	3	4	...	35
Croup		1			2	1		1		1	1		7
" spasmodic			1	1				1	..			...	3
Colltis Ileo	1	1	3	1	2		2			1	1	..	12
Carbuncle	.	...			1	...			1				2
Cystitis	1	1	1	1	1		1	5	2	1	2		16
Convulsions	10	11	3	9	13	13	12	11	18	27	26	15	168
Catarrh	1		1		1		2	2	4	2	3	1	17
Cyanosis		1	1	1	...			1	1		2		7
Chorea, chronic						1						..	1
Cord, knot in		...		1	..						...		1
" strangulation of								1		1		...	2
Chlorosis								...	1				1
Debility, general		...	5	2	2		2	1	2	1	2	1	18
" senile	12	13	16	20	23	17	17	15	15	16	10	18	192
Diphtheria	8	11	11	11	11	22	11	4	7	11	1	4	112
Dysentery	10	7	5	1	3	2	3	3	1		3	6	44
Diabetes	2	3		2	1		1	4	2		2	2	19
Dementia	3	2	3		1	4	1		3	4	3		24
Dropsy	2	2	3	3	3	3	1	3	5	1	1	...	27
Dyspepsia			...	6	1	1	1	1	1	2	2	2	17
Dentition				1	1		..		1			1	4

SUMMARY OF MORTALITY—Continued.

CAUSE OF DEATH.	July, 1899.	August.	September.	October.	November.	December.	January, 1900.	February.	March.	April.	May.	June.	Total.
Entero Colitis	11	13	8	1	2	2	..	1	2	1	1	...	42
Enteritis	9	6	5	7	5	4	1	1	7	4	2	14	65
Endocarditis	2	4		2	3		2	2	7	3	2	2	29
Erysipelas		2			1	1		4	4	8	2		22
Epilepsy	1	3	1	2	1	5	3		2	2	1	1	22
Emphysema	1	...		1	1			1		2	3	2	11
Epithelioma			...	1							1		2
Exhaustion, during labor											1		1
Fracture, femur	2		.							1			4
" skull	...	3	1	1	2	1	1	2	3		1	2	17
" hips					1	...	1					1	3
" leg		...	..			1	...				...		1
Gastro Enteritis	..	1	2	5	1	2	1	1	1	5	1	5	25
Gangrene	1		1	1	1	1	1		1			1	8
" lungs				1				..					1
" intestines				1									1
Gastritis	5	2	3	5	2	5		4	8	4	2	2	42
" acute		1	1		2								4
Gall Stones			1						..				1
Goitre, exopthalmic			...			1	1	1	1		1		5
Glottis, oedema of						1		1					2
Hodgkins Disease			..				1					...	1
Heart Disease	9	15	7	12	12	17	11	14	9	14	10	4	134
" fatty degeneration of	8	1	2	2	1		1	3		2	2	1	23
" valvular disease of	5	5	3	2	3	3	3	7	10	11	5	4	61
" dilatation of		3		3	1		6				1	1	15
" congenital malformation of		1					..		2		..		3
Hæmorrhage	4			1						1			6
" bowels	1				1				1		..		3
" lungs	1	1	4					1	1	1		1	10
" uterine	..	1	1			1		1	1	2			7

SUMMARY OF MORTALITY—Continued.

CAUSE OF DEATH.	July, 1899.	August.	September.	October.	November.	December.	January, 1900.	February.	March.	April.	May.	June.	Total.
Hæmorrhage, stomach	..				2				1		1		4
Hepatitis			1		1	2		2	1	3		.. .	10
Hemiplegia	1			2			1		2	2			8
Hydrocephalus	1	1				1		1	1				5
Hysteria	1	...	..			..					. .		1
Hernia		1		2			..		1	1	1	2	8
" umbilical	1			...						.			1
Hip Joint Disease	..	1	...										1
Heart Clot, ante mortem								...	..	..	1		8
Hypheremesis											1		1
Influenza					..	1	1	3	4	5	1	..	15
Intestinal Obstruction				3		3		5	4	3		..	18
Insolation		3			..							...	3
Intussusception	...	1						2					3
Impetigo Contagiosa		2					...						2
Jaundice		1	4	1	1	2	2	..	1	2			14
Kidney, Infraction of		..	...					..	1			..	1
Laryngitis	...	...	1	1			1	..	1	1			5
Locomotar Ataxia	1					1		..	2				4
Leucocythaemia	...	1						1					2
Leukaemia		1	1	1		1						...	4
Lymphadenitis									1		1		2
Liver, Sclerosis of	3			1		1			1				6
Lungs, Congestion of	2			1		1	2	2	1		1	3	13
Marasmus	35	30	20	21	20	14	14	18	15	13	16	24	240
Meningitis	11	3	2	6	2	4	3	3	3	5	4	6	52
" cebrero spinal		3	3	1	3		3	4	10	5	5	4	41
" tubercular		2	2			1		2	5	2	2	1	17
" cerebral				5	3	3	2		1	4	1	1	20
Malnutrition	1	1	2	2	3	..	1	1	1			1	13
Measles	...	.		3	9	10	4	6	6	7	2	1	48

SUMMARY OF MORTALITY—Continued.

CAUSE OF DEATH.	July, 1899.	August.	September.	October.	November.	December.	January, 1900.	February.	March.	April.	May.	June.	Total.
Murder		2											2
Malarial Fever	1	1	1	1	1	2	1	2	2				12
Myocarditis	1								1	2			4
Mitral Insufficiency	2	1	3	5	2	5	4	4	3	6	5	5	45
Metritis		1					1		1	1		1	5
Monstrosity				1					1	1	8		5
Nephritis	14	7	12	6	9	10	8	8	9	6	4	8	101
" interstitial		1	1	2	4	1	1		1	2	1		14
Non-closure Foramen Ovale	1	2		1	2	2	2		1	1		1	13
Neurasthenia		2									1		3
Neuritis, acute multiple							1	1	..	2			4
Myelitis Osteo					1								1
Ovariotomy			1										1
Operation, Shock				1		1	2	1		1	1	..	7
Phthisis Pulmonalis	22	14	9	11	13	13	8	14	13	15	17	10	158
Pulmonary Tuberculosis	12	13	13	11	13	16	14	18	16	17	23	9	175
Pneumonia	8	12	16	23	33	36	38	36	47	66	34	11	360
" broncho		2	6	3	5	5	14	15	14	17	14	5	100
Peritonitis	6	5	5	9	1	7	6	6	11	7	11	4	81
Paralysis	2	5	10	3	6	9	10	7	8	8	10	4	82
Pleurisy			1			..	2	2		3	1	1	10
Puerperal Fever	2	2	1		1	4	1	2	5	1	1	1	21
Premature Birth	5	4	7	4	3	2	4	2	4	5	6	5	51
Pericarditis	1	1				1				1			4
Paresis	1	1						2		1	2	4	11
Parturition	1	1		1			2	1	1		2		9
Pancreas, Disease of				1									1
Poliomyelitis, Acute		1											1
Pyo-salpinx		1		1			1		1				4
Prolapse of Funis				1			1						2

SUMMARY OF MORTALITY—Continued.

CAUSE OF DEATH.	July, 1899.	August.	September.	October.	November.	December.	January, 1900.	February.	March.	April.	May.	June.	Total.
Phlibitis				1							1		2
Pleuritis Septic	..			..	1				.				1
Progressive Muscular Atrophy				.	1							..	1
Poison, dog bite							1		..				1
" drugs before birth										1			1
Placenta, Degeneration of						1	..						1
Prostate, enlarged			..	..			1	..		2	1		4
" Disease of									1				1
Pyelitis			..				..			1			1
Pelvic Cellulitis							..				..	1	1
Perforation Bowel				..								1	1
Rheumatism	3	2	2	1	1	4	2	1	5	2	5	1	29
Renal Colic				1	2	2							5
" Calculai				1									1
Rupture Stomach		.							.		1		1
Sarcoma	1											..	1
" pelvis					..	1				..		.	1
" breast									1				1
" intestine										1			1
" gluteal									..		1		1
Still Born	17	28	30	29	30	33	31	20	32	35	33	30	348
Scarlet Fever			3	3		1	..	3	3		2	1	16
Septicæmia	2	4	2	3	2	3	5	8	2	4	1	4	40
Suicide, poison	1	5	1	1	2			..	1	1	1	1	14
" hanging		1			1		2			2	3	..	9
" pistol					2		..		1	1	3	1	8
" cutting of artery		..					1				1		2
" knife						.				1			1
Syphilis	1	7	6	3	3	2	2	4	3	2	2	4	39
Stomatitis		1		2		..	..				1	2	6
Syncope						1			1		1		3

SUMMARY OF MORTALITY—Continued.

CAUSE OF DEATH.	July, 1899.	August.	September.	October.	November.	December.	January, 1900.	February.	March.	April.	May.	June.	Total.
Salpingitis	2												2
Stenosis		1								1	1		3
Spina Bifida									1		2	1	4
Scurvy, Infantile												1	1
Typhoid Fever	3	3	3	10	4	2	5	4	5	3	4	6	52
Tetanus	3					1	1					1	6
Tumor	2										1	1	4
" ovaries		2											2
" fibro cystic				1									1
" fibroid						1							1
" abdominal						1							1
" brain								1			1		2
Tonsilitis				1						1		1	3
Tubercular Peritonitis		2											2
Thrombus, Cerebral									1			1	2
Tabes Mesenterica						1	1					1	3
Uræmia	3	1	1	3	3		4	1	2	6	3	2	29
Ulcer, stomach		3	1										4
" bowels						1	1	1	1	2			6
Urine Suppression					1								1
Uterine Gestation, extra		1											1
Unknown	4			2	1		1	4	1		1		14
Varicella	1												1
Varicose Ulcer		1											1
Variola									1				1
Whooping Cough	1	4	1	2		1	1	1			1	1	13
Total													4,934

SUMMARY OF MORTALITY—Continued.

Table showing computation for the death rate of the city.

MONTHS.	Total.	Still Born.	Died Outside of City.	Net.
July, 1899	456	17	43	396
August	438	28	36	374
September	361	30	16	315
October	375	29	29	317
November	373	30	16	327
December	401	33	32	336
January, 1900	370	31	26	313
February	397	20	19	358
March	482	32	25	425
April	500	35	24	441
May	445	33	26	386
June	336	30	9	297
Total	4,934	348	301	
Still born and died outside	649			
Total deaths in city	4,285			4,285

Death rate per 1,000 per annum, 14.14, on a basis of an estimated population of 305,000 inhabitants

BIRTHS REPORTED

For the year ending June 30th, 1900.

MONTH.	Male.	Female.	Total.
July, 1899	173	126	299
August	133	139	272
September	175	147	322
October	122	134	256
November	124	107	231
December	134	108	242
January, 1900	134	119	253
February	128	107	235
March	164	147	311
April	124	121	245
May	135	142	277
June	159	151	310
Total	1,705	1,548	3,253

CONTAGIOUS DISEASES.

Table showing cases reported by months in comparison with preceding years.

MONTH.	DIPHTHERIA.				SCARLET FEVER.			
	1897	1898	1899	1900	1897	1898	1899	1900
July	18	48	7	34	41	39	20	16
August	45	48	11	47	20	39	19	19
September	60	71	31	59	42	40	15	40
October	135	114	62	95	31	49	20	47
November	168	82	71	92	55	66	36	43
December	205	66	55	84	66	66	65	29
January	159	68	48	68	71	42	37	24
February	106	40	27	33	46	25	35	26
March	139	38	25	29	36	19	31	24
April	71	29	23	37	30	26	24	22
May	75	16	25	14	35	29	21	24
June	47	32	19	15	71	27	17	28
Total	1,228	652	405	617	544	467	340	342

CONTAGIOUS DISEASES.

Table showing deaths by months from contagious diseases.

DISEASE.	July, 1899.	August.	September.	October.	November.	December.	January, 1900.	February.	March.	April.	May.	June.	Total.
Diphtheria	9	7	11	13	12	21	13	3	6	12	1	4	112
Scarlet Fever			3	2		1		4	3		2	1	16

Table showing present condition of contagious diseases.

DISEASE.	Total number of cases June 30th, 1899.	DURING THE YEAR.			Total number of cases June 30th, 1900.	Number of Houses Quarantined. June 30th, 1900.
		New cases reported.	Recoveries reported.	Deaths.		
Diphtheria	8	617	510	112	3	2
Scarlet Fever	12	342	311	16	27	22
Small Pox	0	35	34	1	0	0

REPORT OF FUNERAL INSPECTOR.

MONTH.	FUNERALS ATTENDED.			DISINFECTIONS.	
	Diphtheria.	Scarlet Fever.	Typhoid Fever.	Persons.	Lots of Clothing.
July, 1899	1			57	1
August	11		1	92	1
September	7	4	2	100	1
October	13	2	6	118	1
November	10		3	110	4
December	21		1	154	1
January, 1900	11		1	116	4
February	4	3	3	65	
March	6	1	1	63	2
April	10			86	1
May		2	2	25	1
June	4	1	5	32	3
Total	98	13	25	1,018	20

Respectfully submitted,

LEWIS R. NICHOLSON,

Registrar.

Detroit, June 30th, 1900.

REPORT OF THE SANITARY ENGINEER.

DETROIT, MICH., July 1, 1900.

W. R. Baker, M. D., Health Officer:

DEAR SIR—I herewith submit a report of the work of the Sanitary Department for the year ending June 30th, 1900.

PLUMBING.

The chief duty of the department is the oversight of the drainage and plumbing of all buildings, both public and private, to see that the drain from main or lateral sewer to house connection for plumbing, and the plumbing within the building, are constructed according to the Rules and Regulations of the Board of Health governing such work.

To the efficiency with which these duties are performed, does the general health of any city or community depend, for when such have poor drainage, the air of that city is more or less contaminated with the foul gases emanating from the public sewers and house drains. When these escaping gases find entrance into the dwellings from unsanitary construction, there is a lowering of the vitality of the inmates of those dwellings and a consequent increase of sickness, from their inability as a result of such weakness, to successfully resist exposure to contagion. Pure air is just as necessary for the enjoyment of bodily vigor as pure food or water. The Regulations require the work to be constructed so that all household wastes entering the drains shall be quickly and effectually removed into the main public Sewer. That every building shall be protected from the entrance into it of any gas from the main sewer or the plumbing lines within the house. When we consider that this work is done by workmen from the shop and common labor, one can readily understand how necessary it is that all such work shall be done under inspection and subjected to test by competent men employed for this purpose. With a few definitions of the terms used in the accompanying tables, a better understanding will be had of the work performed.

NEW—Drainage and plumbing in new buildings put in according to the regulations.

OLD—Changes or additions to old work, put in prior to the establishment of the plumbing department, which have been made to conform so far as circumstances admitted to the Rules and Regulations.

DRAINS—The house sewer from main or lateral sewer in street or alley to point for the connection of the plumbing work.

SPECIAL—Examination of old work with a view of correcting defects in unsanitary work of the past.

SMOKE TEST—Where it has been necessary to fill the drainage lines with smoke to uncover hidden defects which could not otherwise be located. The smoke test is the most efficient known for this purpose.

INSPECTIONS OF PLUMBING AND DRAINAGE WORK.

1899.	BUILDINGS.		Drains	Special.	Smoke Test.	TOTAL.
	New.	Old.				
July	170	49	203	100	1	523
August	132	55	262	85	1	535
September	131	33	213	80	4	461
October	132	48	143	241	3	567
November	144	33	137	158	18	490
December	102	27	169	69	10	377
1900.						
January	68	28	65	87	34	282
February	60	29	47	84	13	233
March	37	46	51	59	13	206
April	102	64	208	76	8	458
May	99	56	229	95	3	482
June	164	48	145	141	19	517
TOTAL	1,341	516	1,872	1,275	127	5,131

GARBAGE STATISTICS.

Our city garbage is disposed by the Reduction Process at French's Landing, some 25 miles out of the city, by a private corporation, the Detroit Sanitary Works. It is collected in water-tight, covered steel boxes, which when full are loaded upon flat cars and taken to the reduction works. After being emptied, cleaned and disinfected, they are returned to the city for use again. Some 42 wagons are employed in making the daily collections during the summer months. The complaints for non-collection average for the year 8 daily, not all of which are due to the negligence of the collector. As the work is done under private contract with the city, only the amount of garbage collected is given.

1899.	Monthly collection in tons.	Daily collection in tons.	Complaints for non-collection.
July	1,722	66	428
August	2,002	74	390
September	2,182	81	480
October	1,752	66	130
November	1,553	60	113
December	1,429	53	146
1900.			
January	1,448	53	185
February	1,569	65	133
March	1,165	43	312
April	1,257	46	124
May	1,513	56	210
June	1,633	63	239
TOTAL	19,225		2,890

WORK GIVEN TO SANITARY POLICE SQUAD.

The Police Department see that the ordinances of the city are enforced, and the Sanitary Squad look after those cases which come

under the care of the Health Department. To them each day are given all complaints received, which are investigated and action taken accordingly. They also placard all houses which are quarantined and serve the contagious disease circulars. Report of which is made to this office and is given in tabular form.

1899.	Complaints for investigation.	HOUSES PLACARDED FOR		Circulars served.
		Scarlet Fever.	Diphtheria.	
July	253	12	22	136
August	184	15	38	159
September	100	27	47	222
October	120	42	78	480
November	80	33	75	424
December	44	23	66	356
1900.				
January	44	19	50	207
February	33	17	25	126
March	44	18	30	144
April	129	16	28	132
May	162	19	10	87
June	202	22	13	105
TOTAL	1,395	263	480	2,578

QUARANTINE STATISTICS.

The clerical work of the supplies furnished by the Health Department to families quarantined who need help, is done in this office and therefore appears in our report. All orders received from the quarantine inspectors who visit the families, are recorded in duplicate, one being kept, the other going to the contractor who furnishes the supplies. The number in family is given with each order, from which the amount to be sent is determined. Each order, after having been received by the family, is checked by them and returned to us for a

check upon the contractor, and the monthly bill from him must tally with these returns before it is allowed. Thus the city is protected from dishonesty. The original, return and bill rendered, must all agree. The items of interest are given in tabular form.

1899.	Number of families quarantined.	Number of families furnished with supplies.	Number of persons furnished with supplies.	Total cost supplies.
July	36	18	95	$ 128 84
August	53	37	202	308 85
September	74	48	256	275 17
October	120	59	325	357 52
November	106	48	241	264 62
December	89	46	236	206 85
1900.				
January	69	39	210	239 67
February	42	32	167	152 75
March	48	43	205	284 33
April	44	30	154	161 62
May	29	22	111	197 75
June	35	16	86	72 79
	745	438	2,288	$2,650 76
COST OF SUPPLIES FURNISHED TO				
City Hospital and Detention Cottage				$ 276 30
Emergency Hospital				335 16
Detroit Sanitarium				76 12
Total cost of supplies for the year				$3,338 34

The seeming variation in the cost of supplies per month according to the number of persons quarantined is due to the difference in time of quarantine. In scarlet fever the time is 28 days, and in diphtheria is only from 3 to 10 days. When the scarlet fever cases predominate over those of diphtheria the time of quarantine is longer and cost consequently heavier.

The average cost to the City for furnishing these supplies for the past year has only been at the rate of 10 cents per individual per day for each person quarantined. Last year it was 13.7 cents.

VENTILATION.

In 1897 the Board of Health condemned the Smead System of ventilation which was then in use in some 30 of our schools. The system has met with the same condemnation in all places where it has been tried, on account of the lack of uniform volume of air furnished and the contamination of that which was furnished, by the odors from the various toilet rooms. The Board of Health recommended to the Board of Education, the gradual removal of the system, and replacing it with the Modern Fan System of Mechanical Ventilation. The first year nothing was done as the item in the Budget for this purpose was cut out by the Board of Estimates. The next year it was allowed and three of the schools were remodeled as recommended. Last year the item was again cut out by the Board of Estimates, so that nothing has been done the past year.

We point with pride to our beautiful Park, our well paved streets, efficient transportation service by our electric railways, the cleanliness and healthfulness of the city, we surely ought not to be behind in the matter of our schools, and we are not with this exception. We may well be proud of our newer schools, in few cities or any are they excelled, but in some of the older ones we are standing still, where we ought to be advancing. The matter of furnishing our children with an ample supply of pure fresh air in the schools, is of too much importance to be thus pushed aside from year to year. Could our estimators see the real need that exists, the work would not be hindered as it has been.

The accepted standard of volume of ventilation to-day, is 1,800 cubic feet of fresh air per hour for every scholar in the school. Repeated tests in this and other cities have shown, that under the Smead System, as we have it, the volume varies from 1,500 to 400 cubic feet per scholar, nor is the volume uniform in the different rooms of the same school at the same time. This is only one of its defects, but this one alone shows the need of the change.

Respectfully,

A. B. RAYMOND,

Sanitary Engineer.

REPORT 1899-1900.

W. R. Baker, M. D., Health Officer:

DEAR SIR—I beg leave to present the following condensed report for the year ending June 30, 1900.

BACTERIOLOGICAL AND MICROSCOPICAL EXAMINATIONS.

Samples of well water	2
Samples of city water supply	60
Samples of milk	8
Samples examined for Klebs- Loeffler diphtheritic bacilli	449
Samples in which Klebs-Loeffler bacilli were found	142
Samples in which Klebs-Loeffler bacilli were not found	246
Samples indecisive (no growth on culture medium)	61
Samples of sputum for tubercle bacilli	122
Samples in which tubercle bacilli were found	64
Samples in which tubercle bacilli were not found	58
Miscellaneous bacteriological and microscopical examinations	30

CHEMICAL ANALYSES.

Samples of milk for adulteration by watering or skimming	674
Samples of milk for preservatives or other foreign substances	228
Samples of city water supply	12
Samples of well water	2
Samples of candy	31
Samples of cream	4
Samples of butter	1
Samples of medicine	1
Samples of sediment from milk	1
Experimental analyses	11

MISCELLANEOUS.

Blood serum culture medium prepared cubic centimeters,	2,200
Diphtheria culture sets prepared	440
Carbolic acid-gelatin culture medium prepared cubic centimeters,	200
Nutrient gelatin culture medium prepared " "	650
Bouillon culture medium prepared " "	300
Cases in court	1

CANDY.

During the year, 31 samples of candy were analyzed to determine the presence of mineral coloring matter or other poisonous ingred-

ients. The samples were collected from different stores and stands, by an inspector of this department, who selected the cheap, highly-colored grades, as the most likely to be adulterated. All of the samples were pure and entirely free from objectionable mineral substances. Glucose was present in many of the samples, but this ingredient in confectionery is not generally considered an adulterant, and is not prohibited by the laws of this State. Judging from the results of these analysis and from the reports of other chemists engaged in this line of work, the former practice of using, in the manufacture of candy, poisonous mineral colors or other earthy substances such as talc, gypsum, terra alba, barytes, etc., is not now employed to any extent.

DIPHTHERIA.

Of 449 samples examined in suspected cases of diphtheria, 142 (31.6 per cent.) contained the Klebs-Loeffler bacilli ; in 246 (54.8 per cent.) other germs were present ; while in 61 cases the first examination was unsatisfactory, due to a faulty inoculation or to the use of an antiseptic solution shortly before making the inoculation.

TUBERCULOSIS.

By resolution of the Board of Health, passed in January, 1900, the free examination of sputum in suspected cases of tuberculosis was discontinued at that time; 122 samples were examined during the first seven months of the fiscal year, in 52.5 per cent. of which the tubercle bacilli were found.

CITY WATER SUPPLY.

For nearly four years past systematic chemical and bacteriological examinations of our water supply have been made each month, the results of which appear in the annual reports of this department. The variation in the samples analyzed during the past year has not been greater than in previous years, and in no case were results obtained which would warrant an unfavorable report. I do not believe that any typhoid fever has come from our water supply, during the last few

years at least. Our death rate from that disease has certainly been remarkably low in comparison with that of other American cities. For the years ending in June, 1888, 1889 and 1900, Detroit's typhoid fever death rate per 10,000 population was 1.60, 1.83 and 1.70 respectively.

Appended in tabulated form are the results for the year of the monthly examinations of our water.

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CHEMICAL ESTIMATIONS ARE IN PARTS PER MILLION.

	July, 1899.	August, "	September, "	October, "	November, "	December, "	January, 1900.	February, "	March, "	April, "	May, "	June, "
Appearance	*N. C.	N. C.	N. C.	N. C.	T.	N. C.	N. C.	T.	S. T.	T.	N. C.	N. C.
Reaction	‡N.	N.	N.	N.	N.	N.	N.	N.	N.	N.	N.	N.
Total Solids	106.8	108.4	109.6	109.4	124 2	110.4	112.2	124.2	113.0	120 4	109.0	109.2
Volatile Matter	39.2	38.2	40 0	39.8	36.8	38.0	39 4	38.2	40 0	39 0	39.0	36 6
Non-volatile Matter	67.6	70.2	69.6	69 6	87.4	72.4	72.8	86.0	73.0	81 4	70 0	72.6
Free Ammonia	.058	.022	.012	.024	.012	.024	.014	.046	.044	.052	.012	.016
Albuminoid Ammonia	.104	.066	.066	.138	.066	.070	.068	.110	.086	.130	.112	.086
Nitrogen as Nitrates	.199	.050	.130	.099	.148	.082	.132	.164	.198	.099	149	.165
Nitrogen as Nitrites	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
Chlorine	2 70	2.89	2.89	2.89	2.99	2 55	2 74	3.23	2.74	2.65	2.30	2 45
Oxygen absorbed in 15 minutes	.64	.64	.56	.64	.76	.56	.64	.84	.80	.88	.60	.48
Oxygen absorbed in 4 hours	.96	.84	.88	1.00	1.16	.92	.96	1.44	1.28	1.40	.96	.80
Bacteria (number) per cubic centimeter	43	280	28	170	38	22	73	680	124	610	118	138
" " " " "	93	111	105	80	95	18	194	410	98	528	204	94
" " " " "	162	490	203	40	124	102	118	318	212	720	96	205
" " " " "	87	780	77	29	203	84	109	720	175	470	87	104
Growth in 2 per ct. carbolic-acid gelatin	No	No	No	No	No	No	No	Slight	No	No	No	No

* N. C.—Nearly Clear. T.—Turbid. S. T.—Slightly Turbid. ‡ N.—Neutral.

MILK.

The analysis of milk has been continued this year with special attention to milk preservatives during the warm weather. A total of 681 samples have been examined for preservatives during the past two years, 43 of which contained formaldehyde, while in 9 boracic acid, either free or in combination as borax, was present. Thus it appears that the preparations containing formaldehyde have been the most popular with those milk dealers who have resorted to the use of chemicals. This is without doubt due to the ease with which these preparations can be mixed with milk, to their effectiveness as preserving agents, and to the fact that they have been most extensively advertised. The samples of milk are all collected by the milk inspector, who numbers them and delivers the same to the chemist, who is entirely ignorant of their source, as all samples are received and reported upon only by number. As soon as the analysis is completed the results are reported to the inspector, who enters them in his record book, from which any citizen can obtain the standing of his milk dealer by applying to the inspector.

Respectfully submitted,

W. I. TIBBALS,

Chemist and Bacteriologist.

REPORT OF MEAT INSPECTOR.

Heneage Gibbs, M. D., Health Officer:

DEAR SIR—Following is my annual report as Meat inspector for the year ending June 30, 1900:

Inspected native cattle at M. C. R. R. Stock yards		4,790
" " calves " " "		862
" " sheep " " "		3,600
" " hogs " " "		6,860
" milch cows in city		802
" carcasses of beef		33,486
" " veal		28,271
" " mutton		62,318
" " hogs		67,482
Dressed chickens	Lbs.	210,591
" ducks	"	121,406
" turkeys	"	276,312
" geese	"	81,760
Crates of live chickens		22,433
" " ducks		2,167
" " turkeys		11,088
" " geese		198
Condemned as unfit for human food—		
Carcasses of beef (41)	Lbs.	13,653
" beef (minor lots)	"	3,496
" calves (157)	"	6,908
" mutton (120)	"	2,640
" hogs (92)	"	6,180
Poultry	"	18,408
Sweet potatoes (barrels 20)	"	2,300
Peaches (bushels 48)		
Wholesale and retail meat, fish, slaughter houses, commission houses and vegetable markets inspected		6,897

Respectfully submtited,

JOHN R. EGGEMAN,

Meat Inspector.

MEDICAL INSPECTOR.

W. R. BAKER, M. D., Health Office.

DEAR SIR:—I herewith submit my report as Medical Inspector and Disinfector for the year ending June 30, 1900.

Disinfections (scarlet fever)	154
Disinfections (diphtheria)	170
Disinfections (small pox)	35
Disinfections (tuberculosis)	108
Disinfections (measles)	1
Inspections, diagnosis, etc., (scarlet fever)	35
Inspections, diagnosis, etc., (diphtheria)	17
Inspections, diagnosis, etc., (small-pox and suspected small-pox)	30
Patients removed to isolation hospital	11

Respectfully submitted,

E. J. KENDALL, M. D.,

Medical Inspector and Disinfector.

SECRETARY'S REPORT.

DETROIT, MICH., July 1, 1900.

To the Honorable the Board of Health, of the City of Detroit:

GENTLEMEN—I submit herewith the report of disbursements of the Board of Health for the fiscal year ending June 30th, 1900, together with a statement of the balance standing to the credit of the Public Health Fund.

This report shows a saving over last year's operating expenditures of $4531.19.

Should our city be spared a serious outbreak of small pox, which disease for several months past has been prevalent in many places in our own and adjoining states; and other contagious diseases kept in check as successfully in the next as in the last fiscal year, it is believed that the expenditures for the maintenance of this Board need not exceed the appropriation for that purpose. Should it not be be a just cause for thanks and congratulation upon the part of the citizens of Detroit and their Board of Health, that the death rate in our City is so low, and disease, especially of a contagious character, limited in the manner in which it has been.

Labor Health Office, Quarantine Guards, and Hospital	$ 25,735 25
Transportation, (Department Inspectors)	172 82
General Expense	338 49
Printing	377 34
Messenger Service	145 00
Telephone Rent	49 13
Fuel, Board of Health Building, Quarantine Poor and Hospital	1,018 42
Vaccine matter	119 00
Groceries, Meat and Vegetables, for Quarantine Poor	3,821 53
Postage	120 00
Care City Poor Patients	1,429 22
Antitoxin	334 11
Laboratory Supplies	38 34
Hospital Supplies	263 97
Livery Hire	121 00
Disinfectants	281 00
Advertising	22 63
Hospital Repairs	58 71
Plumbing Department Supplies	2 25
Total operating expenses	$ 34,448 01
Cash balance Public Health Fund	$ 8,611 17

Very respectfully yours,

JOHN F. McKINLAY,

Secretary.

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